



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Thomas N. Toombs et al.
Assignee: SanDisk Corporation
Title: Multiple Mode Communications System
Serial No.: 09/186,064 Filing Date: November 4, 1998
Examiner: Myers, P. Group Art Unit: 2181
Docket No.: M-10241 US (formerly M-10241 US)

COMMISSIONER FOR PATENTS
Washington, D. C. 20231

DECLARATION OF THOMAS N. TOOMBS

Sir:

I, Thomas N. Toombs, declare as follows, under the penalty of perjury:

1. I am the co-applicant with Micky Holtzman of the above-identified patent application and am an employee of SanDisk Corporation, a company specializing in production of non-volatile computer memories and the Assignee of the above-identified application. I worked for SanDisk since October 16, 1995, until the present and currently hold the position of Director.

Supporting Documents

2. As part of our work for SanDisk, Micky Holtzman and I developed a memory card with a plurality of protocols and capable of adapting to a host's protocol. This was conceived and reduced to practice prior to March 2, 1998. This is described below with reference to Documents A and B, attached hereto:

Document A is a portion of an HDL description of a pre-production version of an integrated circuit built for use in a memory card designed to operate according to various aspects of the invention described in the above-identified patent application. This netlist was produced and implemented by engineers

under the direct supervision of Micky Holtzman. Dates prior to March 2, 1998, have been removed from the submitted copy.

Document B is a description of relevant portions of this netlist written by me in response to this office action.

3. Document A and similar documents dated both before and after this date have been kept among the usual business records of SanDisk in the ordinary course of business.

Pending Claims

4. Pending claims 87-103 of the application were added by amendment and relate to a memory card with a plurality of protocols and capable of adapting a host's protocol. Claims 87-90 are drawn to the memory card itself, claims 91-96 are drawn to a system including the host as well as the card itself, and claims 97-103 are method claims drawn to using such a card. The reduction to practice of the present invention is described with respect to the card claim 87.

Reduction to Practice

5. The invention of the above referenced patent application presents a memory card, a card-host system, and a method operating a memory card where a memory card is capable of operating in a plurality of communication protocols. When the memory card is connected to a host operating in one of these protocols, the host sends a reset command to the card. Upon receiving the reset command, the card selects the host's protocol for its communication with the host based upon the reset command.

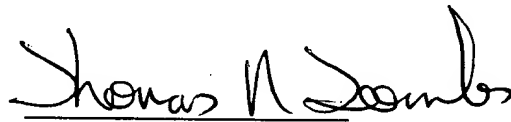
6. Document A is an HDL representation of a portion of an integrated circuit and designed to function according to the invention of the above referenced application. The chip design described in Attachment A is the "interface controller" and corresponds to all parts of Figure 2 of the application except the 7 physical pads ("the interface") along the top, and the bottom region labeled Memory core ("memory section") that is represented by a second integrated circuit chip (the flash mass storage device) not included in this design description. As described in Attachment B, the interface controller selects the first

communication protocol from a plurality of protocols (either SPI or MMC) based solely on an initial reset signal (in this case, the command CMD0 - host reset command) received from the master upon connection to the master.

7. Therefore, the invention of the above referenced patent application as reflected in claim 87 was conceived and reduced to practice prior to March 2, 1998.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Executed this 15th day of April, 2003, at Sunnyvale, California.

A handwritten signature in cursive script, reading "Thomas N. Toombs", written in dark ink.

Thomas N. Toombs